

V. Claims

I claim:

1. An internal tube gripping device comprising:
 - a. a first gripping arm comprising an elongated section with a central axis and a gripping
5 end attached thereto and an angled section extending non-parallel to said central axis and comprising a connecting end attached thereto;
 - b. a second gripping arm, shaped substantially the same as said first gripping arm, but oriented in an opposite direction and pivotally attached to said first gripping arm;
 - c. a separately formed first link member comprising first and second ends, said first end
10 being pivotally connected to said connecting end of said first gripping member;
 - d. a separately formed second link member comprising first and second ends, said first end being pivotally connected to said connecting end of said second gripping member; and
 - e. at least one tensioning member connected to said second ends of said first and second link members.
- 15 2. The internal tube gripping device of claim 1, wherein said gripping end further comprises a series of teeth integrally formed thereon.
3. The internal tube gripping device of claim 1, wherein said first and second gripping arms are offset and overlap along said elongated sections.
4. The internal tube gripping device of claim 1, wherein said at least one tensioning member is
20 flexible.
5. The internal tube gripping device of claim 4, wherein said flexible tensioning members are connected to a central tensioning member.

6. The internal tube gripping device of claim 1, wherein said link members have front, rear, and mid-pivot apertures and said mid-pivot aperture is closer to said front pivot aperture than to said rear pivot aperture.

7. An internal tube gripping device comprising:

5 a. a first gripping means comprising an elongated section with a central axis and a gripping end attached thereto and an angled section extending non-parallel to said central axis and comprising a connecting end attached thereto;

 b. a second gripping means, shaped substantially the same as said first gripping means, but oriented in an opposite direction and pivotally attached to said first gripping means;

10 c. a separately formed first link means comprising first and second ends, said first end being pivotally connected to said connecting end of said first gripping means;

 d. a separately formed second link means comprising first and second ends, said first end being pivotally connected to said connecting end of said second gripping means; and

 e. a tensioning means connected to said second ends of said first and second link means.

15 8. A method of pulling a roll of material comprising an internal roll tube, said method comprising the steps of:

 a. providing a gripping device comprising:

20 i. a first gripping arm comprising an elongated section with a central axis and a gripping end attached thereto and an angled section extending non-parallel to said central axis and comprising a connecting end attached thereto;

 ii. a second gripping arm, shaped substantially the same as said first gripping arm, but oriented in an opposite direction and pivotally attached to said first gripping arm;

iii. a separately formed first link member comprising first and second ends, said first end being pivotally connected to said connecting end of said first gripping member;

iv. a separately formed second link member comprising first and second ends, said first end being pivotally connected to said connecting end of said second gripping member; and

v. tensioning members connected to said second ends of said first and second link members;

b. inserting said gripping device into said roll tube; and

c. applying a tensioning force on said tensioning members.